Louisiana Office of Public Health Laboratories	
Test Name	Detection, Confirmation, or Rule Out of Select Agents
PHL Location	Central Laboratory, 1209 Leesville Avenue, Baton Rouge, LA 70802
CPT Code	N/A
Synonyms	BT Test, Bioterrorism Test, Clinical Rule Out, Environmental BT
Brief Description of Test	This test is used to test for the presence of several different organisms or toxins including: *Bacillus anthracis* , *Brucella* species, *Burkholderia* species, *Coxiella burnetii*, *Francisella tularensis*, *Orthopoxvirus*, *Ricinus communis* toxin (ricin), *Yersinia pestis.*
Possible Results	Presence or absence of the targeted organism or toxin
Reference Range	Negative for the targeted organism or toxin
Specimen Type	1. *Bacillus anthracis* – A. swab samples (for spores) B. growth in liquid or solid media C. clinical samples – vesicular swabs on sterile swab, eschar material on sterile swab, blood cultures, stool [≥5 g], rectal swab, sputum, EDTA anticoagulated blood, plasma, pleural fluid, transtracheal aspirate, sputum, fresh tissue, frozen tissue 2. *Brucella species* – A. whole blood specimen B. growth in liquid or solid media C. environmental samples 3. *Burkholderi species* – A. whole blood, serum B. growth in liquid or solid media C. environmental samples 4. *Coxiella burnetti* – A. EDTA-anticoagulated blood B. tissue C. environmental samples UNACCEPTABLE. No validated procedure is available for environmental samples (soil, air, water). 5. *Francisella tularensis* – A. whole blood samples B. growth in liquid or solid media 6. *Orthopoxvirus* – A. dried vesicular fluid on a slide (touch prep) B. fresh biopsy C. skin or crust from roof of vesicle D. dry or wet swab of lesion E. cellular material from tissue culture demonstrating cytopathic effect (This cellular material is ONLY USED WHEN A NON-VARIOLA ORTHOPOXVIRUS IS SUSPECTED [due to the extremely high infectivity and virulence of *Variola* virus]). 7. Ricin toxin (from *Ricinus communis*) – A. liquid samples B. Plant materials, powder, paper, swabs, wipes, soil, or food C. clinical samples are UNACCEPTABLE 8. *Yersinia pestis* - A. growth in liquid or solid media B. clinical samples – bronchial washings, transtracheal aspirate, sputum, nasopharyngeal swab

Specimen Container(s):	Specimen must be transported in "triple" packaging (primary receptacle, water tight secondary packaging, and durable outer packaging) required for a biological agent of human disease.
Minimum volume accepted:	Very small amounts of sample are needed to extract DNA or RNA. An estimated 1 ml. of blood, 0.1 gram of tissue, 5 ml. of sputum, or solids approximately the size of a pea should be sufficient.
Collection Instructions	1. Extreme care in collecting and handling any of these agents or specimens is necessary. Use of standard precautions is advised. 2. Perform all test sample manipulations within a Class II (or higher) biological safety cabinet (BSC). 3. Use appropriate personal protective equipment and follow guidelines for handling biohazardous agents outlined in Procedure for Laboratory Safety and Decontamination (available on the LRN website and in this manual). 4. For *Bacillus anthracis* specimens that will be tested directly from the swab with PCR, DO NOT USE COTTON SWABS. Use nylon, polyester (e.g. Dacron) rayon or foam swabs instead.
Storage and Transport Instructions	LRN (Laboratory Response Network) guidance for the packaging and shipping of infectious substances and biological agents should be consulted for recent changes. IATA and DOT publications continue to be revised frequently. Submitters should frequently and regularly consult IATA publications, the Federal Register, and the publications of other governing agencies for more complete instructions. It is the shipper's responsibility to ensure adherence to the most current regulations. Useful web sites that address the shipping of infectious substances and biological agents: International Air Transport Association: http://www.iata.org/whatwedo/dangerous goods.html Department of Transportation: http://hazmat.dot.gov/ American Society for Microbiology: http://www.asm.org/ American Biological Safety Association: http://www.absa.org/ Animal and Plant Health Inspection Service: http://www.aphis.usda.gov/ Centers for Disease Control and Prevention: http://www.cdc.gov/od/ohs/

Causes for Rejection	Established laboratory criteria. This can include improper labeling, improper documentation or paperwork, age of specimen, leaking specimen, etc.
Limitations of the Procedure	N/A
Interfering Substances	Cotton swabs used to collect specimens for Bacillus anthracis can interfere with PCR.
References	Laboratory Response Network, National Center for Infectious Disease Control and Prevention (CDC)
Additional Information	N/A
Release Date	11/2013
Warning: If you have printed a copy of this information please be advised that the Louisiana Office of Public Health Laboratories website and methods are updated on a regular basis. Please check the on-line version of this document to ensure you are relying on the most recent release.	